

Claims

1. Use of a poly(dialkylsiloxane) having terminal hydroxyl groups, wherein the alkyl groups contain 1 to 4 carbon atoms, for improving the strength and the surface of dental fillings that are based on glass ionomer cement compositions.
2. Use according to claim 1, wherein the poly(dialkylsiloxane) is linear or cyclic.
3. Use according to claim 1 or claim 2, wherein the alkyl groups of the poly(dialkylsiloxane) are methyl groups.
4. Use according to any one of claims 1 - 3, wherein the poly(dialkylsiloxane) has a kinematic viscosity in the range of about 1 to about 100.000 cSt at 25°C.
5. Use according to any one of claims 1 - 4, wherein the glass ionomer cement composition is obtainable by treating a fluorosilicate glass powder with:
 - (a) a poly(dialkylsiloxane) having terminal hydroxyl groups, wherein the alkyl groups contain 1 to 4 carbon atoms,
 - (b) an aqueous acid solution,
 - (c) separating the treated fluorosilicate glass powder from the aqueous acid solution.
6. Use according to claim 5, wherein the particles of the fluorosilicate glass powder have an average size of about 0.01 to about 200 µm.
7. Use according to claim 5 or claim 6, wherein the aqueous acid solution comprises an inorganic acid or an organic acid.
8. Use according to claim 7, wherein the organic acid is a polymer.
9. Use according to any one of claims 5 - 8, wherein the aqueous acid solution has a pH in the range of 2 to 7.
10. Use of a poly(dialkylsiloxane) having terminal hydroxyl groups, wherein the alkyl groups contain 1 to 4 carbon atoms, as active ingredient for the preparation of a filling composition for improving the strength and the surface of dental fillings that are based on glass ionomer cement compositions.
11. Method for improving the strength and the surface of dental fillings that are based on glass ionomer cement compositions, wherein a surface of a dental filling, which is already formed by filling a dental cavity with a glass ionomer composition, is treated with a poly(dialkylsiloxane) having terminal hydroxyl groups, wherein the alkyl groups contain 1 to 4 carbon atoms.

12. Method according to claim 11, wherein after the treatment with the poly(dialkylsiloxane) the dental filling is cured by ultrasound and/or by applying heat.
13. Method according to claim 11, wherein prior to the treatment with the
5 poly(dialkylsiloxane) the dental filling is cured by ultrasound and/or by applying heat.